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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/848,838	05/18/2004	Raymond J. Martin	MAT 315	4790
23581 7590 05/08/2009 KOLISCH HARTWELL, P.C. 200 PACIFIC BUILDING 520 SW YAMHILL STREET PORTLAND, OR 97204			EXAMINER SUTHERS, DOUGLAS JOHN	
			ART UNIT 2614	PAPER NUMBER
			MAIL DATE 05/08/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/848,838

**Applicant(s)**

MARTIN ET AL.

**Examiner**

Douglas J. Suthers

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.5-12, 15-21, 25-32 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.5-12, 15-21, 25-32 and 35-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

Claims 1, 5-12, 15-21, 25-32, and 35-40 remain pending and are addressed in this office action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 10, 12, 18, 27, 30, 38, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 7 and 27, the claims recite the limitation "a third frequency range in which the frequencies are more than twice the frequencies of the second frequency range". It is unclear how the ranges are being compared, (i.e. bandwidth, center frequency, extreme frequencies).

Regarding claims 10 and 30, the claims recite the limitation "in which the frequencies in the first frequency range are more than four times the frequencies in the second frequency range". It is unclear how the ranges are being compared, (i.e. bandwidth, center frequency, extreme frequencies).

Regarding claims 18 and 38, the claims recite the limitation "in which the frequencies in the second frequency range are more than four times the frequencies in the first frequency range". It is unclear how the ranges are being compared, (i.e. bandwidth, center frequency, extreme frequencies).

Claim 40 recites the limitation "the filtered first sound signal". There is insufficient antecedent basis for this limitation in the claim.

Claim 40 recites the limitation "the filtered second sound signal". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-12, 15-21, 25-32, and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hata (US 5402702).

Regarding claim 1, Hata discloses a toy comprising:  
a body (all components of figures 15);

a sound detector (figure 15A, item 41) adapted to detect sound in at least a first frequency range (60H), to detect sound in a second frequency range different than the first frequency range (60B) and to reject frequencies outside the first and second frequency ranges (band pass filters 60 reject all but frequencies of interest); and

an output apparatus mounted in the body and adapted to produce a corresponding first sensible action when a signal is detected in the first frequency range (lighting of corresponding LED 48) and a corresponding second sensible action when sound is detected in the second frequency range (lighting of corresponding LED 48).

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 5, Hata discloses in which the sound detector rejects frequencies between the first and second ranges (those frequencies of 60B' at least).

Regarding claims 6-10, although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be

used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 11, Hata discloses in which the body includes at least one movable part (switch SW of 47), and in which the sensible action includes one or more of illuminating a light (48), producing a sound, and moving the at least one movable part.

Regarding claim 12, Hata discloses a toy comprising:

a body (all components of figures 15);

a signal detector (figure 15A, item 41) adapted to detect sound in a first frequency range (60B) and a second frequency range that includes frequencies above normal human speech (60H) and to reject frequencies outside the first and second frequency ranges (band pass filters 60 reject all but frequencies of interest); and

an output apparatus mounted in the body and configured to produce a corresponding sensible action when the detected signal is determined to be in either of the first and second frequency ranges (lighting of corresponding LED 48).

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation

to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claims 15-18, although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 19, Hata discloses in which the body includes at least one movable part (switch SW of 47), and in which the sensible action includes one or more of illuminating one or more lights (48), producing one or more sounds, and moving the at least one movable part.

Regarding claim 20, Hata discloses a toy comprising:  
a body (all components of figures 15);



a sound receiver (figure 15A, item 41) mounted in the body and adapted to receive sounds in a first sound frequency range;

a first sound analyzer (60B) coupled to the signal receiver and adapted to produce a first control signal (output of 45) indicative of sound received in a second sound frequency range;

a second analyzer coupled (60H) to the signal receiver and adapted to produce a second control signal (output of 45) indicative of signals received in a third frequency range above about 5 kHz;

a first output device (48) mounted in the body, responsive to the first control signal, and adapted to produce a corresponding first sensible action (lighting of corresponding LED 48) when sound in the second frequency range is received; and

a second output device (48 of 60H) mounted in the body, responsive to the second control signal, and adapted to produce a second sensible action (lighting of corresponding LED 48) when sound in the third frequency range is received.

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 21, Hata discloses a method of operating a toy having a body (all components of figures 15), comprising:

detecting sound (figure 15A, item 41) in at least a first frequency range above normal human speech (60H), detecting sound in a second frequency range different than the first frequency range (60B);

rejecting frequencies outside the first and second frequency ranges (band pass filters 60 reject all but frequencies of interest);

producing a corresponding first sensible action in the body when signals are detected in the first frequency range (lighting of corresponding LED 48); and

producing a corresponding second sensible action in the body when sound is detected in the second frequency range (lighting of corresponding LED 48).

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 25, Hata discloses in which the sound detector rejects frequencies between the first and second ranges (those frequencies of 60B' at least).

Regarding claims 26-30, although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 31, Hata discloses in which the body includes at least one movable part (switch SW of 47), and in which the sensible action includes one or more of illuminating a light (48), producing a sound, and moving the at least one movable part.

Regarding claim 32, Hata discloses method of operating a toy having a body (all components of figures 15), the method comprising:

Detecting sound (figure 15A, item 41) in a first frequency range (60B) and a second frequency range that includes frequencies above normal human speech (60H);  
rejecting frequencies outside the first and second frequency ranges (band pass filters 60 reject all but frequencies of interest); and

producing in the body at least a first sensible action when the detected signal is determined to be in either of the first and second frequency ranges (lighting of corresponding LED 48).

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claims 35-38, although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

Regarding claim 39, Hata discloses in which the body includes at least one movable part (switch SW of 47), and in which the sensible action includes one or more

of illuminating one or more lights (48), producing one or more sounds, and moving the at least one movable part.

Regarding claim 40, Hata discloses a method of operating a toy having a body (all components of figures 15), the method comprising:

receiving (figure 15A, item 41) in the body sounds in a first sound frequency range (range of microphone);

producing first (input to 60B) and second (input to 60H) sound signals indicative of sound received in the first frequency range;

filtering out of the first sound signal portions of the first sound signal representative of sound having frequencies above a first frequency (band pass filters 60 reject all but frequencies of interest);

producing from the filtered first sound signal, a first control signal (output of 45) indicative of sound received in a second frequency range below the first frequency;

filtering out of the second sound signal portions of the second sound signal representative of sound having frequencies below a second frequency (band pass filters 60 reject all but frequencies of interest);

producing from the filtered second sound signal, a second control signal (output of 45) indicative of sound received in a third frequency range above the second frequency;

producing a first sensible action in the body upon production of the first control signal (lighting of corresponding LED 48); and

producing a second sensible action in the body upon production of the second control signal (lighting of corresponding LED 48).

Although Hata does is silent about the exact frequencies isolated by the band pass filters it would have been obvious to the designer that any sub range of the audible frequency range (20Hz to 20Khz per column 7 line 13) could be used. The motivation to do so would have been to allow for isolating portions of the audio that are of interest to the designer while rejecting those portions not of interest (such as drums or vocal column 7 line 8 and 9). Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to detect and reject the frequency ranges as claimed.

### ***Response to Arguments***

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's remarks 7, 10, 18, 27, 30, and 38 regarding the relationship of the frequency bands the examiner would like to clarify, as above, that how the comparison is to be performed is still unclear. The claim as written could be stating the number of frequencies in a given range is twice the number in a second range (twice the bandwidth), that the lowest frequency of in a given range is twice the lowest frequency in a second range, or that every frequency in the second range is twice any in the first range (the lowest of the second range is twice that of the highest of the first range).

Regarding claim 40 the examiner maintains that "the filtered first sound signal" and "the filtered second sound signal" lack antecedent basis. In particular, it is unclear if the signals are formed by the portions filtered out of the above steps or by the original signal having portions removed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Suthers whose telephone number is (571)272-0563. The examiner can normally be reached on Monday-Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number:  
10/848,838  
Art Unit: 2614

Page 14

/Douglas J Suthers/  
Examiner, Art Unit 2615

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2614